

1. In the example food web illustrated below, name a

a) producer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b) primary consumer\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c) secondary consumer\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

d) top carnivore\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

[4 marks]

2. Select a food chain from the food web above and illustrate a pyramid of energy. Show the amount of energy available at each trophic level. [3 marks]

3. Calculate the growth rate of a population of pandas. The following data was collected from January 2001 to January 2002. If the panda population was 500 in 2011, what will it be in 2012? Show your work by writing the formula and substituting the appropriate numbers. [4 marks]

Births = 300 Deaths = 200 Immigration = 15 Emigration = 9

4. Explain why introducing foreign species into a new ecosystem can be so detrimental to the native species. Provide and an example with your explanation. [4 marks]

5. Explain how cutting down and burning large regions of forest would alter the carbon dioxide and oxygen levels in the atmosphere. Be sure to indicate whether the levels increase or decrease for each substance. [4 marks]

6. Humans are considered to be influential with regards to ecosystems. Outline two specific examples of how humans manipulate or influence an ecosystem. [4 marks]

7. Explain the term *bioaccumulation* as it relates to pesticide use. Provide an example food chain to explain how this phenomenon occurs. [4 marks]

8. Know how to read a population graph and to interpret the relationships that are displayed in the graph. Also, know the factors that affect the predator prey relationship that might not be evident on the graph...density dependant/independant factors, limiting factors,a nd carrying capacity.

9. Know how the carbon cycle works and how animals and plants influence the production of carbon.